

Remarks/Arguments:

Introduction

Claims 1-40, 42-47 and 50-66 are pending. Claim 47 has been amended to include the limitations of claims 48 and 49. Claims 48 and 49 are canceled. Claim 41 was previously canceled. Claims 55-60 and 63-66 are withdrawn.

Entry of the claim amendments is respectfully requested.

Section 103 Rejections

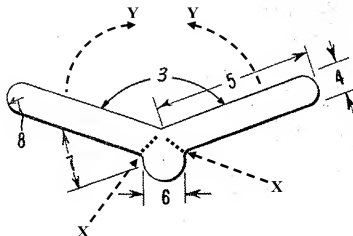
Claims 1-40, 42-47, 50-54, 61 and 62 are rejected under 35 U.S.C. §103(a) as allegedly being obvious over U.S. Patent No. 3,940,552 to Wessells (hereinafter “Wessells”). Applicants respectfully traverse.

Applicant respectfully submits that Wessells fails to teach or suggest an artificial turf filament with claimed distinctions of the subject invention.

During play of an artificial sports field artificial fibers are subjected to all kinds of impacts inhibited by the players on the field. Therefore, there is a need for an artificial fiber having the ability to return to its initial state once being deformed during play. To this end an artificial fiber according to the present invention is obtained having two diverging wing shaped areas, having an outwardly protruding bulb at the side of the diverging wing areas and an essentially flush face at the other side of the wing areas.

When being deformed during play the diverging wing areas tend to move towards each other and away from each other, thereby creating tension forces at the side remote from the diverging face of the fiber. Those undesired tension forces at the side remote from the diverging wing areas may lead to an undesired splitting of the fiber limiting its life span.

In contrast to the present invention, Wessells specifically teaches an outwardly protruding bulb at the side remote of the diverging wing areas. In fact, the transition face between the central area and both wing areas at the side remote from the diverging wing areas exhibits an irregularity limiting its life span. The drawing below depicts Figure 2 of Wessells.



During deformation both wing areas bend to each other (see, .e.g. "Y"), and critical tension forces will occur at the irregular transition between the flat shaped wing areas and the central area. These irregular transitions are indicated with X. The tension forces occurring at X will inevitably lead to undesired rupture lines in the wing areas of the fiber, further limiting the life span of the fiber.

With the present invention such undesired tension forces cannot occur as the side remote from the diverging wing areas is an essentially flush face and does not exhibit an irregular face as in Wessells. Therefore, it is respectfully submitted that it is not obvious to one of ordinary skill in the art to provide a two-winged artificial fiber with a protruding bulb at the central area between the two wing areas and an essentially flush face at the side remote from the diverging wing areas, as set forth in the independent claims of the present invention, form the teachings of Wessells.

Apart from an improved life span the artificial fiber according to the invention also exhibits an improved behavior concerning a ball rolling over the turf, e. g. in soccer. The two wings cross-section allows for a roll behavior of a (soccer) ball closely resembling the rolling of said ball over a well maintained natural grass surface. The artificial turf filament also combines a good resistance against repeated deformation with durable flexibility.

With further respect to independent claim 47, the different artificial fibers of Wessells (figure 3; 9 and 10) are used to provide a natural differentiation in fiber length, giving the turf a more natural look and feel. Both artificial fibers influence the characteristics of the field. In the present invention, however, the wrapping filament is used only to improve and simplify the manufacturing of a bundle of a plurality of artificial filaments. The wrapping filaments are releasable wrapped around said artificial filaments in a double helical path with opposing directions.

Once the turf is subjected to a wrapping filaments release treatment (in a natural way by e.g. playing soccer, or as a result of brushing the turf) the wrapping filaments release the artificial turf filaments. The wrapping filaments do not influence the characteristics of the field.

Therefore, independent claims 1 and 47 are patentably distinct over Wessells. Accordingly, reconsideration and withdrawal of the Section 103 rejection of claims 1-40, 42-47, 50-54, 61 and 62 are respectfully requested.

As the independent claims are patentably distinct over Wessells, no further discussions of the dependent claims of the subject application are necessary. Nevertheless, Applicant preserves the right to traverse Wessells on the merits with respect to any and all dependent claims as those arguments are not presented herein merely for the sake of brevity. Applicants are not making any admissions regarding the assertions made by the Examiner with respect to Wessells.

Summary

Therefore, Applicants respectfully submit that independent claims 1 and 47, and all claims dependent therefrom, are patentably distinct. Rejoinder of the withdrawn claims is respectfully requested. This application is believed to be in condition for allowance. Favorable action thereon is therefore respectfully solicited.

Should the Examiner have any questions or comments concerning the above, the Examiner is respectfully invited to contact the undersigned attorney at the telephone number given below.

The Commissioner is hereby authorized to charge payment of any additional fees associated with this communication, or credit any overpayment, to Deposit Account No. 08-2461. Such authorization includes authorization to charge fees for extensions of time, if any, under 37 C.F.R. § 1.17 and also should be treated as a constructive petition for an extension of time in this reply or any future reply pursuant to 37 C.F.R. § 1.136.

Respectfully submitted,

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